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ABSTRACT

A system for developing assessment-reteaching cycles referenced to instructional outcomes is projected to enhance the effectiveness of elementary school mathematics textbooks. Salient precycle and paracycle features of the system are outlined. Procedures and activities to set the stage for instructional cycling are described, such as: translating the substance of activities provided in a mathematics textbook into instructional outcomes and performance modes, partitioning serially listed outcomes into 20-25 units, and developing criterion exercises for selected outcomes and performance modes in each unit. (Author)

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DEVELOPING A SYSTEM OF CRITERION REFERENCED ASSESSMENT - RETEACHING CYCLES IN TEXTBOOK SUPPORTED MATHEMATICS INSTRUCTION

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SWRL For Educational Research and Development

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Since the structure of mathematics skills is hierarchical in nature, students' acquisition of a particular mathematics skill is contingent upon their repertoire of prerequisite skills. Therefore, assessment of student acquisition of prerequisite skills prior to introduction of a higher skill is of particular importance in mathematics learning.

Within the hierarchical framework of mathematics the primary function of assessment of learning should be to feedback relevant data for appropriate cycling of instruction. The current status of program development in most existing mathematics textbooks does not provide for teaching-assessment-reteaching cycles in any systematic way. Student acquisition of mathematics skills is assessed at the end of a chapter of instruction (once in every 15-20 instruction days), with little systematic provision for follow-up. As a consequence, assessment as it is ordinarily provided in mathematics programs plays a minor role in instructional decision making.

This paper describes the initial activity of a team of SWRL staff members in designing and developing a system of criterion referenced assessment-reteaching cycles for textbook supported mathematics instruction for the purpose of enhancing mastery of mathematics skills.

PRECYCLE FEATURES OF THE SYSTEM

Precycle features of the System set the stage for cycling instruction by (i) identifying explicitly the mathematics skills to be acquired and (ii)

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determining whether the intended skills have been acquired. Primary activities and procedures involved are as follows:

1. The content of a mathematics textbook is analyzed into a series of instructional outcomes. The outcomes are further subdivided into performance modes-i.e., intermediary instructional models for the acquisition of skills. (See Appendix A)
2. The instructional outcomes and performance modes are catagorized into major skill areas, such as: Numbers, Addition/Subtraction, Multiplication/Division, Geometry, Measurement, etc. The resulting "map" displays the linear development of each major skill in the Program. Of particular interest are the "spirals" of a skill. Such a map greatly facilitates the selection of skills for assessment since 40%-50% of the skills in a program are extensively redeveloped in the succeeding level.
3. To achieve effective and manageable teaching-assessment-reteaching cycles, serially listed instructional outcomes and performance modes from each chapter of the textbook are divided into 2-4 Learning Mastery System (LMS) Units. The scope of each Unit is determined by two criteria:
   a. Content homogeneity-a high degree of relationship between major outcomes.
   b. Sequence depth-a feasible number of major outcomes to be acquired over limited instruction time (5-10 instruction days). (See Appendix B)
4. Using the "map," two-three major outcomes and performance modes are identified in each LMS Unit. (See Appendix C)

5. An Entry Skills Check is developed for each LMS Unit where prior acquisition of important prerequisite skills is assumed. (See Appendix D)
6. A Criterion Exercise is developed for each LMS Unit. It is designed to assess student acquisition of the major outcomes identified for the Unit. A Criterion Exercise consists of several sections. Each section represents one major outcome and consists of six multiple choice items including an exemplar. The Criterion Exercise is administered immediately after completion of regular instruction in a Unit. (See Appendix E)

PARACYCLE FEATURES OF THE SYSTEM

Paracycle features of the System provide appropriate follow-up activities to enhance pupil acquisition of mathematics skills. Cycling of instruction occurs as student scores on the Criterion Exercise indicate varying needs for practice activities on one or more major outcomes tested. Primary activities and procedures involved in the paracycle features of the System are as follows:

A three-stage Practice Exercise is designed and developed for differential needs of students as indicated by their Criterion Exercise scores. Each stage of the Practice Exercise consists of several sections each of which corresponds to a section on the Criterion Exercise. (See Appendix F)

1. The first stage--Supplemental Exercise--provides an opportunity for structured practice on skills that should have been acquired enroute to achieve the outcome tested on the Criterion Exercise. Items represent a gradient from introductory, to intermediate, to terminal outcomes. The last few items in each section are

parallel to the test items in the corresponding section of the Criterion Exercise.

2. The second stage--Review Exercise--provides an opportunity to reinforce the acquisition of skills assessed in the Criterion Exercise for pupils whose scores were near criterion. The items are essentially parallel to the test items in the corresponding sections of the Criterion Exercise.
3. The third stage--Extension Exercise--is designed for use by students whose Criterion Exercise scores were satisfactory. Activities in this exercise extend outcomes and performance modes assessed in the Criterion Exercise to a more challenging context.

Guidelines for assigning practice exercises are usually recommended as follows:

Pupils scoring 1 or 2 answers correct on ANY section of the Criterion Exercise are assigned the CORRESPONDING section of the Supplemental Exercise.

Pupils scoring 3 answers correct on ANY section of the Criterion Exercise are assigned CORRESPONDING section of the Review Exercise.

Pupils scoring 4 or 5 answers correct on ALL sections of the Criterion Exercise are assigned the Extension Exercise.

INTEGRATING FEATURES OF THE SYSTEM

The integrating features of the system consist of materials and procedures which coordinate all the components involved in the instruction.

1. An Activities and Materials Guide coordinates instructional components of the textbook referenced program with LMS components. It provides the following information for each LMS Unit:
   a. major instructional outcomes

b. an outline of the instructional sequence

c. Criterion Exercise section for each major outcome assessed

d. corresponding textbook and workbook pages

e. suggested completion time

f. specific instructions for the administration of the LMS components

g. answers to Criterion and Practice Exercises (See Appendix G)

2. A Criterion Exercise Record Sheet to record Criterion Exercise scores for each LMS Unit. It amounts to an achievement profile for each student across major mathematics skill areas. (See Appendix H)

3. A Teacher's Manual provides useful information to the teacher for effective implementation of the System.

   a. It presents a rationale for use of the Learning Mastery System and describes the major system characteristics.

   b. It describes all the components involved in the System.

   c. It explains the procedures for the effective use of the components.

   d. It provides answers for anticipated questions on salient features of the System.

1973-4 LMS-MATH TRYOUT RESULTS

The LMS-Math materials for Grades K-3 were installed in the Los Angeles, Orange, San Diego, and Sacramento School Districts in September, 1973. Initial feedback from 222 classes was received after 2-3 months. Teachers classify into five groups on the basis of their initial reaction to the System.

GROUPS	FREQUENCY
1. Teachers who favor the System with no suggestions for improvement	80
2. Teachers who favor the System with one or more suggestions for improvement	69
3. Teachers who express mixed feelings about the System	33
4. Teachers who are uncertain about the usefulness of the System but acknowledge one or more advantages	22
5. Teachers who think that the System is not useful	18
	222

Teachers' comments are summarized below:

COMMENTS	FREQUENCY
The System helps in grouping/individualizing instruction	131
The System helps in assessing mastery of mathematics skills	119
The System demands too much time for management and/or record keeping	41
Criterion Exercise formats do not match the instruction	38
Practice Exercise formats do not match the instruction	15
Practice ctivities are insufficient	9
Instruction slows down	8
The print is too small	6
Individualized Criterion Exercise Record Sheet is recommended	4
Wording does not match with student text	4
Extension Exercises are too difficult	3

Revisions are currently underway to remedy or reduce noted deficiencies.

APPENDIX*

*The content of Appendix A-C has been derived from Modern School Mathematics: Structure and Use, Level 2, Chapter 9, Houghton and Mifflin Company, 1967.

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APPENDIX A
CONTENT ANALYSIS

Instructional Outcomes	Performance Modes	Textbook Pages
Determine the difference of two numbers	Naming differences	
: 2-digit and 1-digit numbers	: using the number line	249
	: using the expanded form	250
	: using the short and expanded forms in three equations with the same ones' digits	251
	: using the short form	252
: a 2-digit multiple of 10 and a 2-digit number	Naming differences	
	: using the number line	253
	: using the expanded form--renaming the multiple as 10 and the next smaller multiple of 10	254
	: using the short form	255-6
: 2-digit numbers	Naming differences	
	: using the expanded form--renaming the larger number as a number between 10 and 20 and a 2-digit multiple of 10	257
	: using the expanded form--renaming one ten as 10 ones	258
	: using the short form	259-260
Decode a secret word	Naming differences using a given code	256
Count to 990 by tens and hundreds	Providing missing numerals in a sequence	
	: on the number line	263
	: in an addition table	264
Represent a number less than 1000 in compact, expanded, and column forms	Translating expanded form into compact/column form, conversely	264-6
	Completing the expanded form to a number	266
	Comparing an expanded form with compact form	266
Determine the sum or difference of 3-digit numbers, no renaming	Naming sums	
	: using the expanded form	267-70
	: using the 4-step form	271
	: using the short form	272
	Naming differences	
	: using the 4-step form	273
	: using the short form	274
Solve verbal problems involving 2-, 3- place addition and subtraction	Naming sums, missing addends, or providing number sentences	275,278
Solve puzzles involving 2-, 3- place addition	Solving equations for "across" and "down"	277
Interpret a message coded in addition/subtraction expressions	Using a given code	276
Chapter Checkup and Extension		279-8

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APPENDIX B
LMS UNITS FOR CHAPTER 9

LMS UNIT 9A

Instructional Outcomes	Performance Modes	Textbook Page
Determine the difference of two numbers	Naming differences	
: 2-digit and 1-digit numbers	: using the number line	249
	: using the expanded form	250
	: using the short and the expanded forms in three equations with the same ones' digits	251
	: using the short form	252
: A 2-digit multiple of 10 and a 2 digit number	Naming differences	
	: using the number line	253
	: using the expanded form--renaming the multiple as 10 and the next smaller multiple of 10	254
	: using the short form	255-6
: 2-digit numbers	Naming differences	
	: using the expanded form--renaming the larger number as a number between 10 and 20 and a 2-digit multiple of 10	257
	: using the expanded form--renaming one ten as 10 ones	258
	: using the short form	259-260
Decode a secret word	Naming differences using a given code	256

LMS UNIT 9B

Instructional Outcomes	Performance Modes	Textbook Page
Count to 990 by tens and hundreds	Providing missing numerals in a sequence	
	: on the number line	263
	: in an addition table	264
Represent a number less than 1000 in compact, expanded, and column forms	Translating expanded form into compact/column form, conversly	264-6
	Completing the expanded form of a number	266
	Comparing an expanded form with compact form	266
Determine the sum or difference of 3-digit numbers, no renaming	Naming sums	
	: using the expanded form	267-70
	: using the 4-step form	271
	: using the short form	272
	Naming differences	
	: using the 4-step form	273
	: using the short form	274
Solve verbal problems involving 2-, 3- place addition and subtraction	Naming sums, missing addends, or providing number sentences	275,278
Solve puzzles involving 2-, 3- place addition	Solving equations for "across" and "down"	277
Interpret a message coded in addition/subtraction expressions	Using a given code	276
Chapter Checkup and Extension		279-8

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APPENDIX C
MAJOR OUTCOMES OF LMS UNITS 9A & 9B

Instructional Outcomes	Performance Modes	LMS UNIT 9A Textbook Pages	CE Sec.
Determine the difference of two numbers	Naming differences		
: 2-digit and 1-digit numbers	: using the number line	249	
	: using the expanded form	250	
	: using the short and the expanded forms in three equations with the same ones' digits	251	
	: using the short form	252	1
: a 2-digit multiple of 10 and a 2-digit number	Naming differences	253	
	: using the number line		
	: using the expanded form--renaming the multiple as 10 and the next smaller multiple of 10	254	
	: using the short form	255-6	2
: 2-digit numbers	Naming differences		
	: using the expanded form--renaming the larger number as a number between 10 and 20 and a 2-digit multiple of 10	257	
	: using the expanded form--renaming one ten as 10 ones	258	
	: using the short form	259-260	3
Decode a secret word	Naming differences using a given code	256	

Instructional Outcomes	Performance Modes	LMS UNIT 9B Textbook Pages	CE Sec.
Count to 990 by tens and hundreds	Providing missing numerals in a sequence		
	: on the number line	263	
	: in an addition table	264	
Represent a number less than 1000 in compact, expanded, and column forms	Translating expanded forms into compact/column form, conversely	264-6	
	Completing the expanded form of a number	266	1
	Comparing an expanded form with compact form	266	
Determine the sum or difference of 3-digit numbers, no renaming	Naming sums		
	: using the expanded form	267-70	
	: using the 4-step form	271	
	: using the short form	272	2
	Naming differences		
	: using the 4-step form	273	3
	: using the short form	274	3
Solve verbal problems involving 2-, 3- place addition and subtraction	Naming sums, missing addends, or providing number sentences	275,278	
Solve puzzles involving 2-, 3- place addition	Solving equations for "across" and "down"	277	
Interpret a message coded in addition/subtraction expressions	Using a given code	276	
Chapter Checkup and Extension		279-8	

ENTRY SKILLS CHECK

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NAME_____

SECTION A

NAME THE MISSING ADDENDS

25 - 3 = 22	46 - 5 = ☐	39 - 4 = ☐	65 - 5 = ☐
77 - 3 = ☐	98 - 5 = ☐	88 - 7 = ☐	99 - 9 = ☐

SECTION B

NAME THE MISSING ADDENDS

26 - 14 = 12	57 - 35 = ☐	38 - 26 = ☐	49 - 12 = ☐
88 - 44 = ☐	97 - 63 = ☐	69 - 46 = ☐	99 - 66 = ☐

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CRITERION EXERCISE

BOOK 2
LMS UNIT 9B

NAME _____

SECTION 1 No. correct ____

MARK THE MISSING NUMERAL

374 = 300 + 70 + 4				186 = ___ + 80 + 6				520 = 500 + 20 + ___			
37	7	~~70~~	74	1	10	100	18	2	20	520	0
200 + 80 + 3 = ___				**800 + 60 + 0 = ___**				**700 + 0 + 9 = ___**			
203	803	283	208	600	806	800	860	709	790	79	16

SECTION 2 No. correct ____

MARK THE SUM

243 + 125 = 368				556 + 342 =				704 + 245 =			
268	378	~~368~~	366	214	898	888	878	744	709	909	949
444 + 222 = ___				**750 + 208 = ___**				**345 + 543 = ___**			
222	666	777	000	958	758	708	950	555	845	848	888

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SECTION 3 No. correct ____

MARK THE MISSING ADDEND

749 - 216 = 533				478 - 132 =				619 - 203 =			
335	433	334	~~533~~	334	346	444	333	406	616	416	315
824 - 300 =				777 - 444 =				978 - 423 =			
500	324	524	624	222	232	323	333	455	555	545	554

APPENDIX F

PRACTICE EXERCISE

REVIEW

NAME_____

BOOK 2
LMS UNIT 9B

SECTION 1

WRITE THE NUMERALS

142	=	100	+	40	+	2			
365	=	300	+		+				
594	=		+		+				
977	=		+		+				
408	=		+		+				

200	+ 50 + 2 =	
700	+ 20 + 7 =	
500	+ 50 + 5 =	
900	+ 00 + 1 =	
800	+ 30 + 4 =	

SECTION 2

WRITE THE NUMERAL

235	464	851	650	555
+ 123	+ 235	+ 126	+ 328	+ 333
358				
726	685	243	508	324
+ 273	+ 213	+ 654	+ 301	+ 465

SECTION 3

WRITE THE NUMERAL

648	884	795	547	986
- 527	- 643	- 462	- 203	- 352
121				
407	839	666	784	978
- 104	- 513	- 456	- 731	- 643

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SUPPLEMENTAL

NAME_____

SECTION 1

WRITE AN EXPANDED OR COMPACT NUMERAL

25	=	20	+	5	39	=	___	+	___
67	=	___	+	7	72	=	___	+	___
51	=	___	+	1	91	=	___	+	___
84	=	80	+	___	___	=	30	+	8
40	=	40	+	___	___	=	90	+	9

WRITE AN EXPANDED OR COMPACT NUMERAL

326	=	300	+	20	+	6	687	=	___	+	___	+	___
564	=	500	+	___	+	4	218	=	___	+	___	+	___
182	=	___	+	80	+	2	933	=	___	+	___	+	___
490	=	400	+	90	+	___	___	=	600	+	20	+	5
222	=	200	+	___	+	___	___	=	100	+	80	+	8

SECTION 2

WRITE THE SUMS

5	4	2	3	4	8
+ 3	+ 5	+ 7	+ 6	+ 3	+ 0
12	34	41	75	55	34
+33	+ 25	+ 34	+ 24	+ 33	+ 43
19					

WRITE THE NUMERALS

hundreds	tens	ones
2	4	7
+ 3	2	1
5	6	8

hundreds	tens	ones
4	8	2
+ 3	1	6

hundreds	tens	ones
7	5	3
+ 2	3	6

hundreds	tens	ones
6	4	2
+ 2	3	0

hundreds	tens	ones
1	8	3
+ 2	1	6

hundreds	tens	ones
4	4	4
+ 4	4	4

SECTION 3

NAME THE MISSING ADDENDS

9	7	8	6	4	9
- 2	- 4	- 5	- 5	- 4	- 6
24	47	68	85	97	59
- 13	- 25	- 32	- 51	- 34	- 25
19					

WRITE THE NUMERALS

hundreds	tens	ones
4	6	5
- 2	4	1
2	2	4

hundreds	tens	ones
3	7	8
- 2	5	6

hundreds	tens	ones
7	8	5
- 3	4	1

675
- 432

999
- 456

781
- 430

EXTENSION

NAME_____

SECTION A

USE ANY THREE OF THE NUMERALS TO NAME

4 7 1 6, 2

The largest number possible ____

The number closest to the largest number ____

The smallest number possible ____

The number closest to the smallest number ____

Three numbers larger than 600 and less than 620 ____ ____ ____

SECTION B

WRITE THE MISSING NUMERALS

346	542	☐
+532	+ ☐	+456
878	895	869

457	527	63☐
+☐3☐	+3☐1	+2☐4
7☐8	☐5☐	☐79

754	659	☐
-213	- ☐	-573
☐	235	222

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APPENDIX G

ACTIVITIES AND MATERIALS GUIDE

ACTIVITY SEQUENCE

INSTRUCTIONAL OUTCOMES	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	
	Textbook Pages 263-4	265-6	267-8	269-70	271-2	273-4	275-6	277-8	279-80	LMS CE	LMS PE
Count to 990 by tens and hundreds	•									Sec. 1	•
Represent a number less than 1000 in expanded and compact forms.	•	•								Sec. 2	•
Determine the sum of two 3-digit numbers, no renaming			•	•	•	•				Sec. 3	•
Determine the difference of 3-digit numbers, no renaming			•	•	•	•					
Solve verbal problems involving 2-, 3-place addition and subtraction							•	•			
CHAPTER CHECKUP AND EXTENSION									•		
RELATED INSTRUCTIONAL ACTIVITIES MSM Workbook		75	76	76	77-8	77-8	77	78			

Suggested Completion Time: 10 days.

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SPECIAL DIRECTIONS

Administer the Criterion Exercise after completion of page 278 or 280. In the 9th class session, you may want to review the Unit concepts during the first half of the class period and administer the Criterion Exercise in the second half.

CRITERION EXERCISE

NAME_____

BOOK 2
LMS UNIT 9B

SECTION 1 — No. correct ____

MARK THE MISSING NUMERAL

374 = 300 + 70 + 4	186 = 100 + 80 + 6	520 = 500 + 20 + 0	
37	7	~~70~~	74
1	10	~~100~~	18
2	20	520	~~0~~
200 + 80 + 3 = 283	800 + 60 + 0 = 860	700 + 0 + 9 = 709	
203	803	~~283~~	208
600	806	800	~~860~~
~~709~~	790	79	16

SECTION 2 — No. correct ____

MARK THE SUM

243 + 125 = 368	556 + 342 = 898	704 + 245 = 949	
268	378	~~368~~	366
214	~~898~~	888	878
744	709	909	~~949~~
444 + 222 = 666	750 + 208 = 958	345 + 543 = 888	
222	~~666~~	777	000
~~958~~	758	708	950
555	845	843	~~888~~

SECTION 3 — No. correct ____

MARK THE MISSING ADDEND

749 − 216 = 533	478 − 132 = 346	619 − 203 = 416	
335	433	334	~~533~~
334	~~346~~	444	333
406	616	~~416~~	315
824 − 300 = 524	777 − 444 = 333	978 − 423 = 555	
500	324	~~524~~	624
222	232	323	~~333~~
455	~~555~~	545	554

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SPECIAL DIRECTIONS

Section 1: Read directions and explain sample problems.

Section 2-3: Be sure pupils have been able to complete the first part in each section before going to the second part. Check pupils' progress as they complete the remainder of each section.

SUPPLEMENTAL

NAME _____

SECTION 1

WRITE AN EXPANDED OR COMPACT NUMERAL

25	=	20	+	5	39	=	30	+	9
67	=	60	+	7	72	=	70	+	2
51	=	50	+	1	91	=	90	+	1
84	=	80	+	4	38	=	30	+	8
40	=	40	+	0	99	=	90	+	9

WRITE AN EXPANDED OR COMPACT NUMERAL

326	=	300	+	20	+	6	687	=	600	+	80	+	7
564	=	500	+	60	+	4	218	=	200	+	10	+	8
182	=	100	+	80	+	2	933	=	900	+	30	+	3
490	=	400	+	90	+	0	625	=	600	+	20	+	5
222	=	200	+	20	+	2	188	=	100	+	80	+	8

SECTION 2

WRITE THE SUMS

5	4	2	3	4	8
+3	+5	+7	+6	+3	+0
8	9	9	9	7	8
12	34	41	75	55	34
+33	+25	+34	+24	+33	+43
19	59	75	99	88	77

WRITE THE NUMERALS

hundreds	tens	ones	hundreds	tens	ones	hundreds	tens	ones
2	4	7	4	8	2	7	5	3
+3	2	1	+3	1	6	+2	3	6
5	6	8	7	9	8	9	8	9
6	4	2	1	8	3	4	4	4
+2	3	0	+2	1	6	+4	4	4
8	7	2	3	9	9	8	8	8

SECTION 3

NAME THE MISSING ADDENDS

9	7	8	6	4	9
-2	-4	-5	-5	-4	-6
7	3	3	1	0	3
24	47	68	85	97	59
-13	-25	-32	-51	-34	-25
19	22	36	34	63	34

WRITE THE NUMERALS

hundreds	tens	ones	hundreds	tens	ones	hundreds	tens	ones
4	6	5	3	7	8	7	8	5
-2	4	1	-2	5	6	-3	4	1
2	2	4	1	2	2	4	4	4

675	999	781
-432	-456	-430
243	543	351

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SPECIAL DIRECTIONS

Sec. 1: Read the direction and explain the sample problem.

Sec: 2-3: Students should be able to complete the exercise by themselves.

Sec. 1: Read the direction and explain what pupils are supposed to do.

Sec. 2-3: Pupils should be able to complete the exercise by themselves.

PRACTICE EXERCISE

REVIEW

NAME _____ BOOK 2 LMS UNIT 9B

SECTION 1
WRITE THE NUMERALS

142 = 100 + 40 + 2	200 + 50 + 2 = 252
365 = 300 + 60 + 5	700 + 20 + 7 = 727
594 = 500 + 90 + 4	500 + 50 + 5 = 555
977 = 900 + 70 + 7	900 + 00 + 1 = 901
408 = 400 + 0 + 8	800 + 30 + 4 = 834

SECTION 2
WRITE THE NUMERAL

235	464	351	650	555
+123	+235	+126	+328	+333
358	699	977	978	888
726	685	243	508	324
+273	+213	+654	+301	+465
999	898	897	809	789

SECTION 3
WRITE THE NUMERAL

648	884	795	547	986
-527	-643	-462	-203	-352
121	241	333	344	634
407	839	666	784	978
-104	-513	-456	-731	-643
303	326	210	53	335

EXTENSION

NAME _____

SECTION A
USE ANY THREE OF THE NUMERALS TO NAME

4 7 1 6, 2

The largest number possible	764
The number closest to the largest number	762
The smallest number possible	124
The number closest to the smallest number	126
Three numbers larger than 600 and less than 620	612 614 617

SECTION B
WRITE THE MISSING NUMERALS

346	542	[413]
+532	+ [353]	+456
[878]	895	869
457	527	63[5]
+ [3]3[1]	+3[5]1	+2[4]4
7[8]8	[8]5[8]	[8]79
754	659	[795]
-213	- [424]	-573
[541]	235	222

APPENDIX H

CRITERION EXERCISE RECORD SHEET

BEST COPY AVAILABLE

PUPIL		LMS UNIT 1A		LMS UNIT 1B			LMS UNIT 1C			LMS UNIT 2A		LMS UNIT 2B				LMS UNIT 3A		LMS UNIT	
	SKILL AREA	ORDER	SETS	NUMBERS/NUMERALS	NUMBERS/NUMERALS	NUMBERS/NUMERALS	NUMBERS/NUMERALS	NUMBERS/NUMERALS	NUMBERS/NUMERALS	NUMBERS/NUMERALS	NUMBERS/NUMERALS	ORDER	ORDER	ORDER	ORDER	ADDITION	ADDITION	SUBTRACTION	SUBTRACTION
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